

Wu 113122cont

IN THE CLAIMS:

13. (Canceled) .

14. (Canceled) .

15. (Canceled) .

16. (Canceled) .

17. (Canceled) .

18. (Currently Amended) A method for controlling access to a resource that may be shared by a plurality of users, which resource has an associated lock and the lock having an associated state, comprising the steps of:

when a user U_a of said users wishes to initiate access

said user sends to said lock command X that includes a tuple (M,S), where $M=0$ and $S=B_a$, where B_a uniquely identifies user U_a ;

when said lock receives said command X, said lock returns to said user its state value B_i that is either 0 or a non-zero value that uniquely identifies a user U_i that previously set said lock, and when $B_i=0$, said lock sets its state to B_a , thereby granting to said user access to said resource,

where B_a includes an identifier, P_a , that uniquely identifies said user, and a time stamp, T_a , that is a time pertaining to said user, B_a is such that both P_a and T_a can be derived from B_a ,

where, when in response to command X said lock returns to said user said state of said lock B_i and $B_i \neq 0$, said user proceeds with the following steps:

derives value P_i and T from B_i ;

obtains value T_i that pertains to a user identified by P_i ;

if T is not equal T_i , sends command Z to said lock, which command

includes tuple (M,S), where $M=B_i$; The method of claim 15

and

Wu 113122cont

where $B_a = P_a + T_a * N$, where N is an integer and P_a is a number less than N .

19. (Currently Amended) A method for controlling access to a resource that may be shared by a plurality of users, which resource has an associated lock and the lock having an associated state, comprising the steps of:

when a user U_a of said users wishes to initiate access

said user sends to said lock command X that includes a tuple (M, S) , where $M=0$ and $S=B_a$, where B_a uniquely identifies user U_a ;

when said lock receives said command X , said lock returns to said user its state value B_i that is either 0 or a non-zero value that uniquely identifies a user U_i that previously set said lock, and when $B_i=0$, said lock sets its state to B_a , thereby granting to said user access to said resource,

where B_a includes an identifier, P_a , that uniquely identifies said user, and a time stamp, T_a , that is a time pertaining to said user, B_a is such that both P_a and T_a can be derived from B_a ,

where, when in response to command X said lock returns to said user-said state of said lock B_i and $B_i \neq 0$, said user proceeds with the following steps:

derives value P_i and T from B_i ;

obtains value T_i that pertains to a user identified by P_i ;

if T is not equal T_i , sends command Z to said lock, which command

includes tuple (M, S) , where $M=B_i$; The method of claim 15

and The method of claim 17

where deriving P_i from B_i comprises expressing B_i in modulo N , and deriving T from B_i comprises dividing B_i to obtain a remainder that includes an integer value, and setting T to the integer value.

20. - 27. (Canceled) .